Theoretical Considerations of Suicide

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What is a theory?

- Theories play a crucial role in science and practice.
- Theories provide understanding, direction, and guide predictions.
- Theories provide order and structure to what we aspire to know.
- Theories help us organize and interpret research and results.
- Theories are crucial for the development of hypotheses, models, and ultimately laws.

What constitutes a good theory?

- Its intuitive appeal.
- Its ability to account for existing data.
- Its explanatory relevance.
- Its ability to predict novel events.
- Its parsimony.
- Its heuristic value.

Sociological Theories

Suicide: A Study in Sociology (Durkeim, 1897)

- Durkeim argued that suicide results from society's strength or weakness of control over the individual (i.e., the key role of social integration).
- In this approach there are basic types of suicide:
  1. Egoistic—a lack of integration into society
  2. Altruistic—an over-integration with a group
  3. Anomic—a sudden change in one's relation to society
  4. Fatalistic—excessive societal regulation that restricts one's freedom

Suicide Modeling: The “Werther Effect”

Overview to the Werther Effect

- The origins of the Werther Effect (Phillips, 1974).
- Following the suicide of Marilyn Monroe, Phillips found a 12% increase in the US national suicide rate in the month following her death.
- An excess of 303 more suicides than would otherwise be expected.

Sociological theories continued

- Phillips' work launched 30 years of studying potential modeling effects pertaining to suicide (i.e., suicide "contagion" or "copy-cat" effects).
- Stack (1987) has published many studies on sociologically-based modeling effects.
- Many approaches and methodologies have been used to study modeling effects—there has been much debate in this literature.
- With recent contradictory findings (Jobes et al., 1996; Martin & Koo, 1996; Mercy et al., 2001), there is a need for more controlled research to address the "ecological fallacy."

Modeling Effect Research Example:
Jobes et al (1996) study of Kurt Cobain's suicide and potential copycat suicides

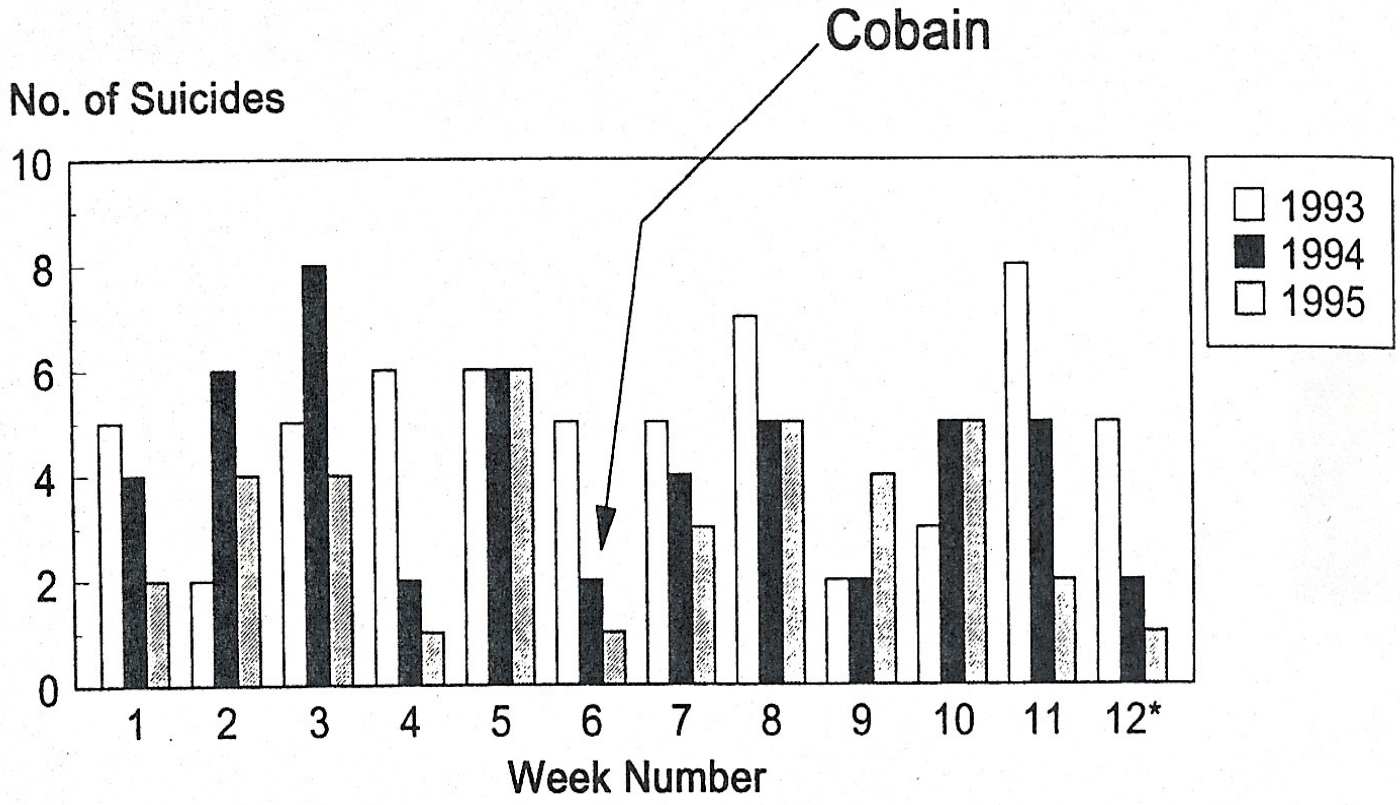


FIGURE 22.1. Suicides in King County, Washington, by week, late February to mid-May, several years. *Partial week. *Source:* Medical Examiner's Office, King County, Washington.

Cobain study continued

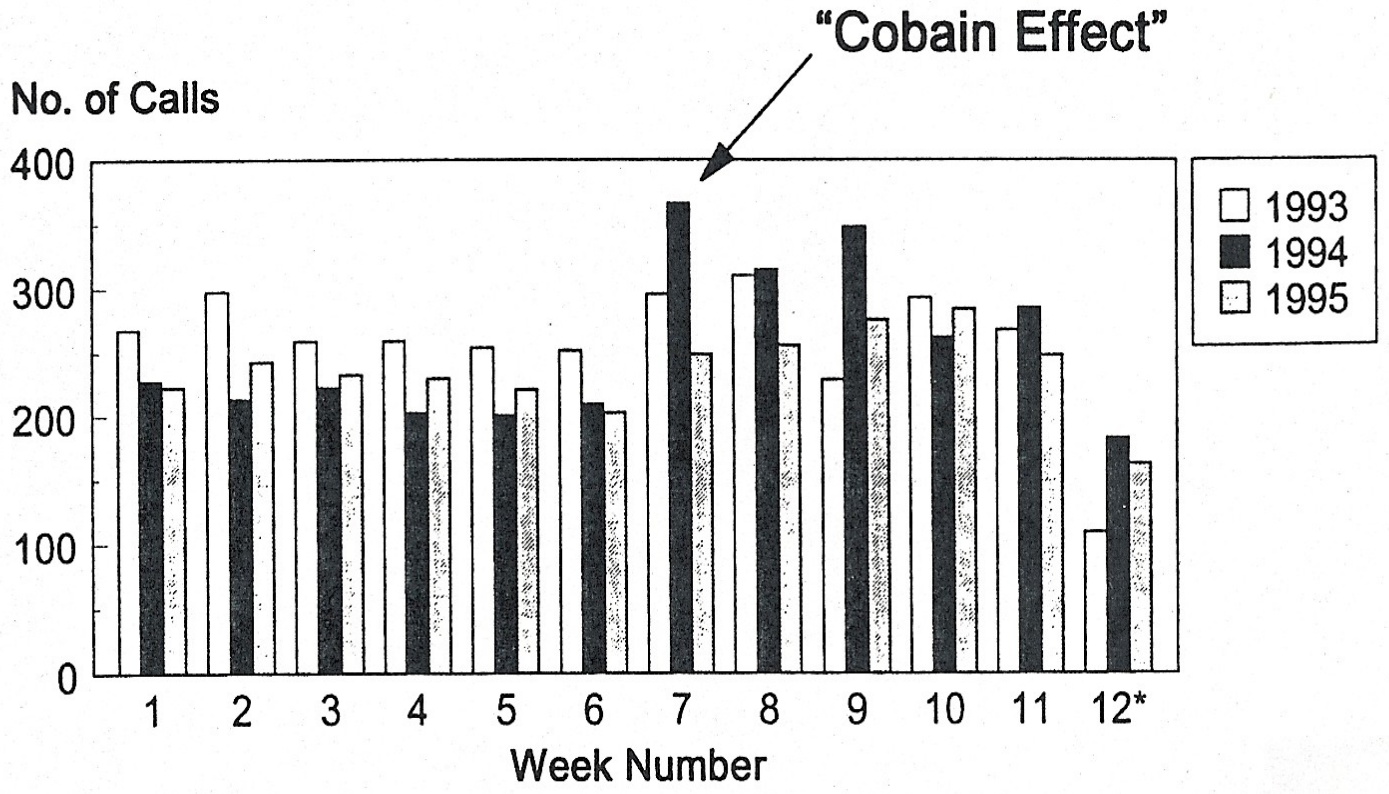


FIGURE 22.2. Suicides crisis calls to the Seattle Crisis Clinic by week, late February to mid-May, several years. *Partial week. *Source:* Seattle Crisis Clinic.

Psychological Theories

Sigmund Freud

Psychoanalytically-Oriented Theories

- Freud (1917) argued that suicide is hostility turned against the self (i.e., murder in the 180th degree).
- Menninger (1938) theorized about the role of the death instinct and hostility in relation to:
  - The wish to kill
  - The wish to be killed
  - The wish to die
- Adler (1958) viewed suicide as an interpersonal act due to insufficient social interest (i.e., suicidal people hurt others by hurting themselves).

Psychoanalytic Theories Continued

- Jungian analysts argued the suicide represents a desire for rebirth (Wahl, 1957).
- Others argue that separation-individuation is central (Leonard, 1967; Wade, 1987).
- Smith (1985) argued for the importance of ego vulnerability and issues of ego control.

Family Systems Theory

- These theories tend to emphasize the suicidal influences of a dysfunctional family system (e.g., Sabbath's notion of the "expendable child").
- Wagner's (1997) theory posits that youthful suicidal behaviors may be:
  - Child-driven
  - Parent-driven
  - Reciprocal (between parents and child)

Behavioral and Cognitive Theories

- Ferster (1973) argued that suicide functions in relation to environmental contingencies.
- Frederick and Resnick (1971) used principles of learning theory to explain suicidal behaviors.
- Neuringer (1964) and Shneidman (1980) developed the first cognitive theories of suicide emphasizing constriction, ambivalence, rigidity, and dichotomous thinking.
- Beck’s work emphasizing the role of hopelessness was a significant contribution.

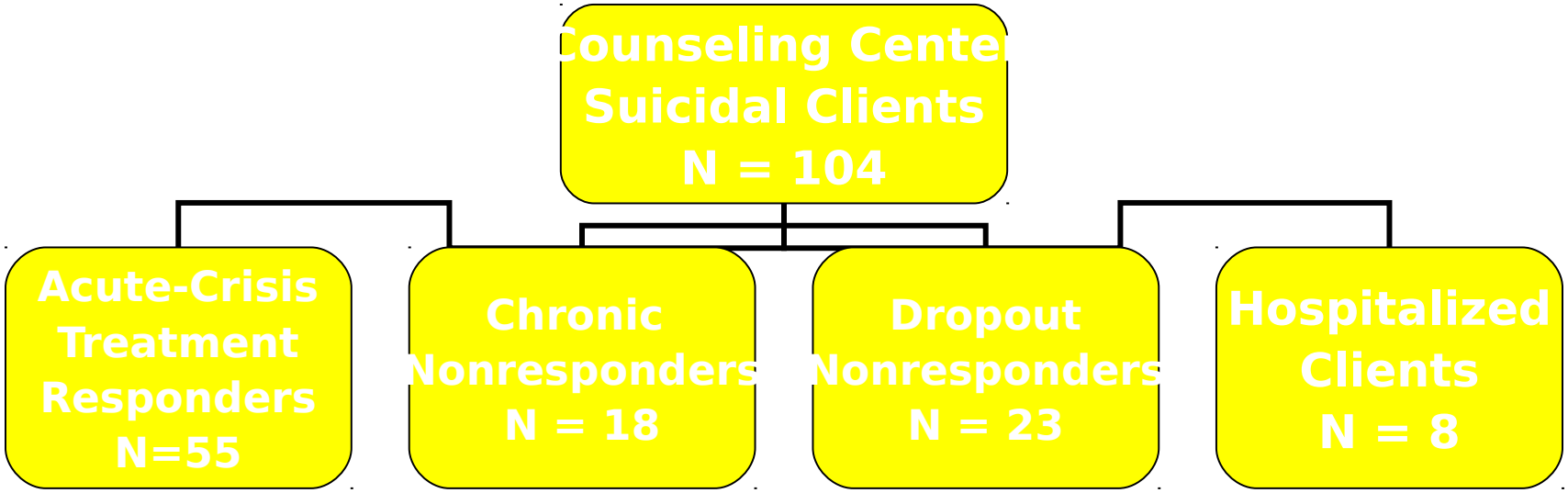
Cognitive-Behavioral Theories Continued

- Rudd, Joiner, and Rajab (2001) extended Beck's work with their notion of the "suicidal mode" which emphasizes the interaction of cognitive, affective, behavioral, and motivational schemas.

- Williams (2001) argues that suicide is a "cry of pain" –he notes the importance of cognitive entrapment.

- Linehan's (1993) argues that suicidal behaviors are learned maladaptive efforts to cope with low distress tolerance and limited coping resources.

Suicidal college students seen from 1991 to 1996 in one university counseling center (Jobes et al., 1997)



Example of Clinically-Derived Theory: Intrapsychic vs. Interpsychic Suicidality (Jobes, 1995)

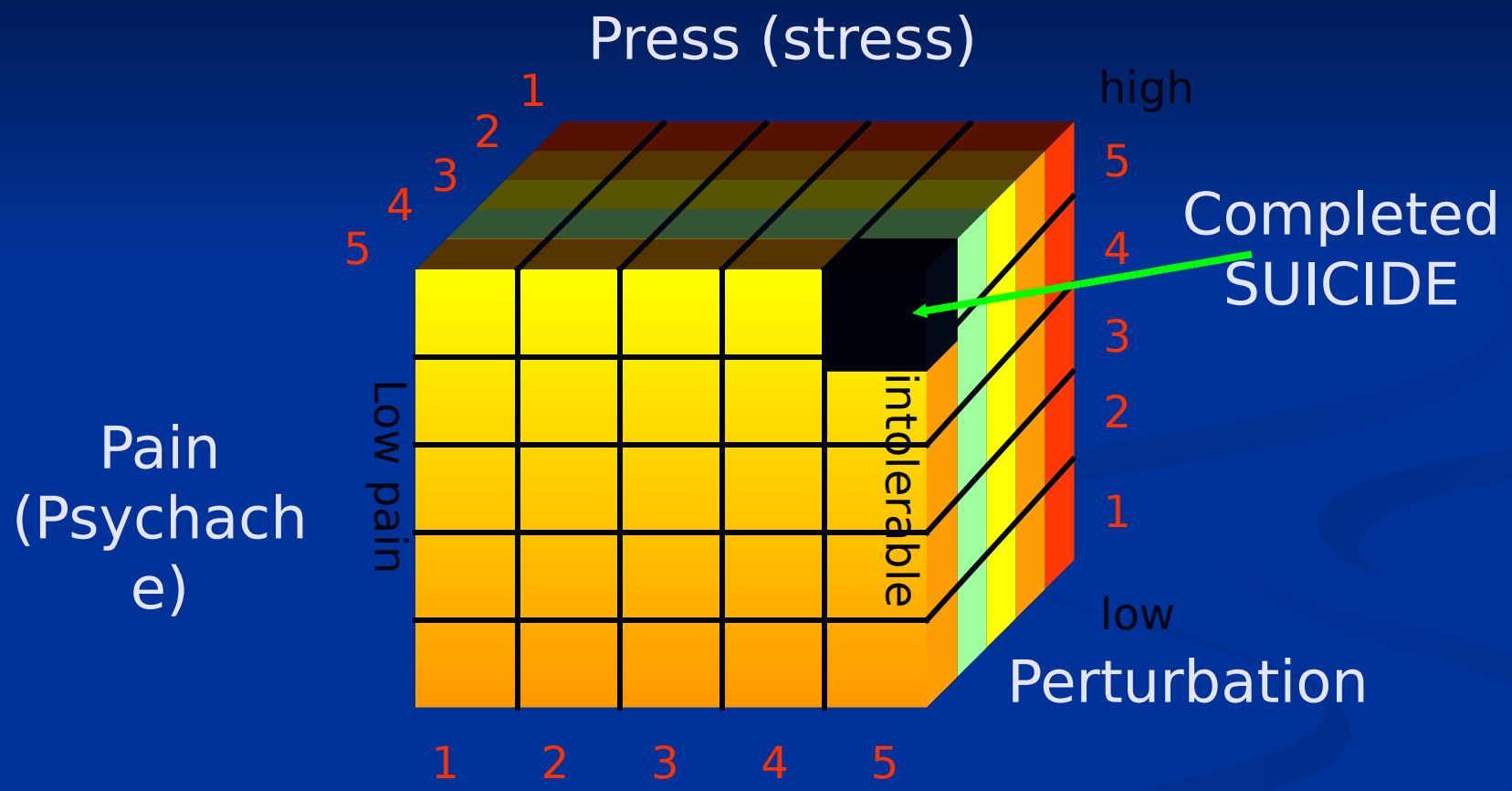
O----------O

Intrapsychic Suicide	Interpsychic Suicide
Internal pain Focus Focus	**External pain**
Private suicide	**Public Suicide**
Axis I	**Axis II**
(e.g., Vince Foster)	**(e.g., Marilyn Monroe)**

Other Psychological Theories and Models

- Baumeister's (1990) escape from self theory.
- Farber (1968)argued that suicide is a disease of hope in which social forces are interactive with psychological influences.
- Rogers (2001) offered an existential-constructivist model that explains pathways to suicide.
- Joiner (2005) offers a new psycho-social model that is the first major new theory in many years.

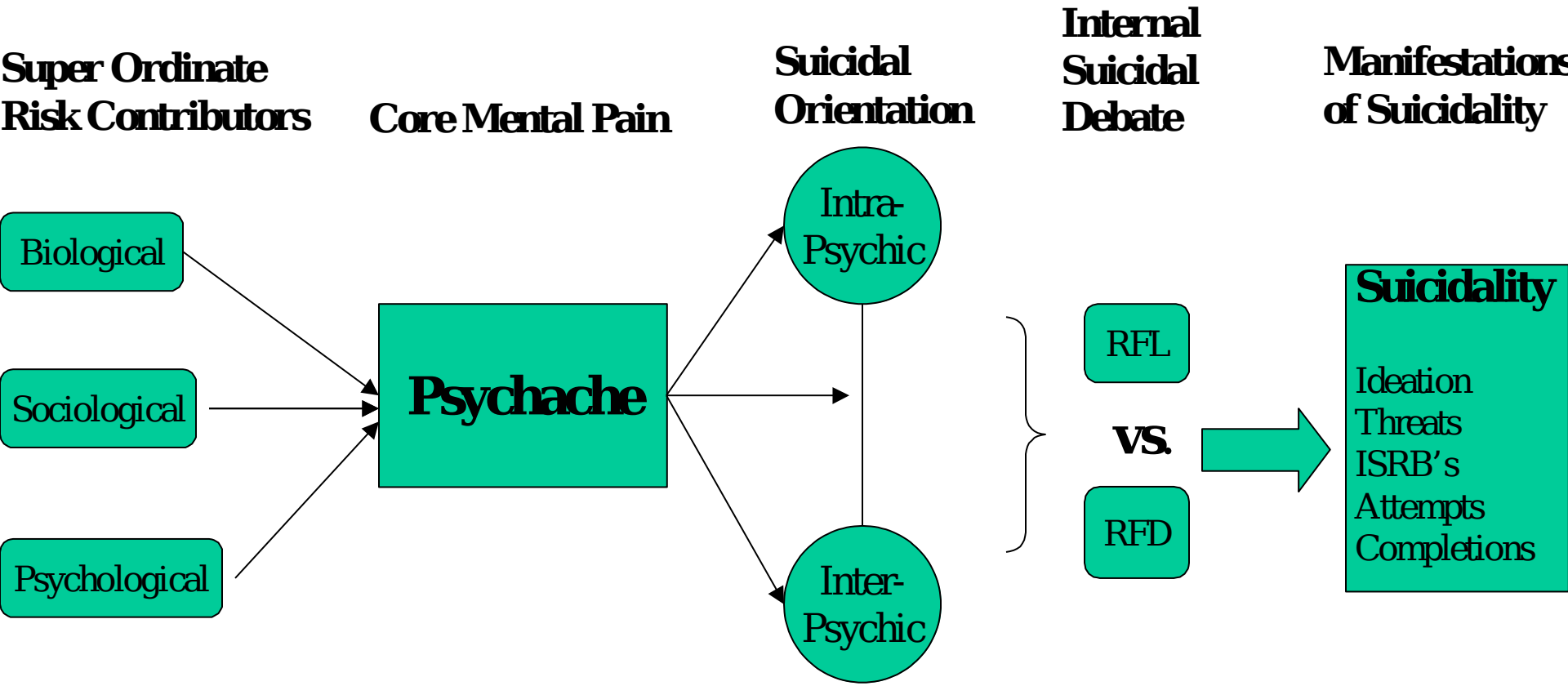
Shneidman's Cubic Model of Suicide

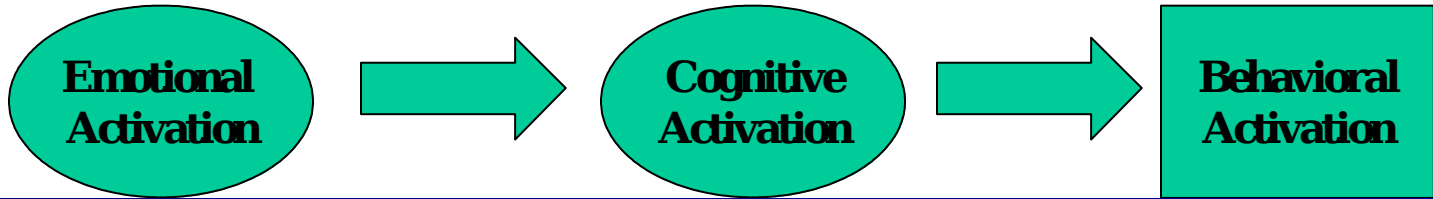


(Shneidman, 1987)

Phenomenological Model of Suicidality

(Jobes et al., 2001)





Suicide Status Form-SSF II (Initial Session)

Patient: _____ Clinician: _____ Date: _____ Time: _____

Section A (*Patient*):

I have thoughts of ending my life: **0 1 2 3 4**
(0=Never; 1=Rarely; 2=Sometimes; 3=Frequently; 4=Always)

Rate and fill out each item according to how you feel right now.
Then rank in order of importance 1 to 5 (1=most important to 5=least important).

Rank	
____	1) RATE PSYCHOLOGICAL PAIN (*hurt, anguish, or misery in your mind, **not** stress, **not** physical pain*): **Low pain: 1 2 3 4 5 :High pain** What I find most painful is: _____
____	2) RATE STRESS (*your general feeling of being pressured or overwhelmed*): **Low stress: 1 2 3 4 5 :High stress** What I find most stressful is: _____
____	3) RATE AGITATION (*emotional urgency; feeling that you need to take action; **not** irritation; **not** annoyance*): **Low agitation: 1 2 3 4 5 :High agitation** I most need to take action when: _____
____	4) RATE HOPELESSNESS (*your expectation that things will not get better no matter what you do*): **Low hopelessness: 1 2 3 4 5 :High hopelessness** I am most hopeless about: _____
____	5) RATE SELF-HATE (*your general feeling of disliking yourself; having no self-esteem; having no self-respect*): **Low self-hate: 1 2 3 4 5 :High self-hate** What I hate most about myself is: _____
N/A	6) RATE OVERALL RISK OF SUICIDE: **Extremely low risk: (will not kill self) 1 2 3 4 5 :Extremely high risk (will kill self)**

1) How much is being suicidal related to thoughts and feelings about yourself? **Not at all: 1 2 3 4 5 : completely**
2) How much is being suicidal related to thoughts and feelings about others? **Not at all: 1 2 3 4 5 : completely**

Please list your reasons for wanting to live and your reasons for wanting to die. Then rank in order of importance 1 to 5.

Rank	REASONS FOR LIVING	**Rank**	REASONS FOR DYING

I wish to live to the following extent: Not at all: 1 2 3 4 5 6 7 : Very much
I wish to die to the following extent: Not at all: 1 2 3 4 5 6 7 : Very much

The one thing that would help me no longer feel suicidal would be: _____

_____

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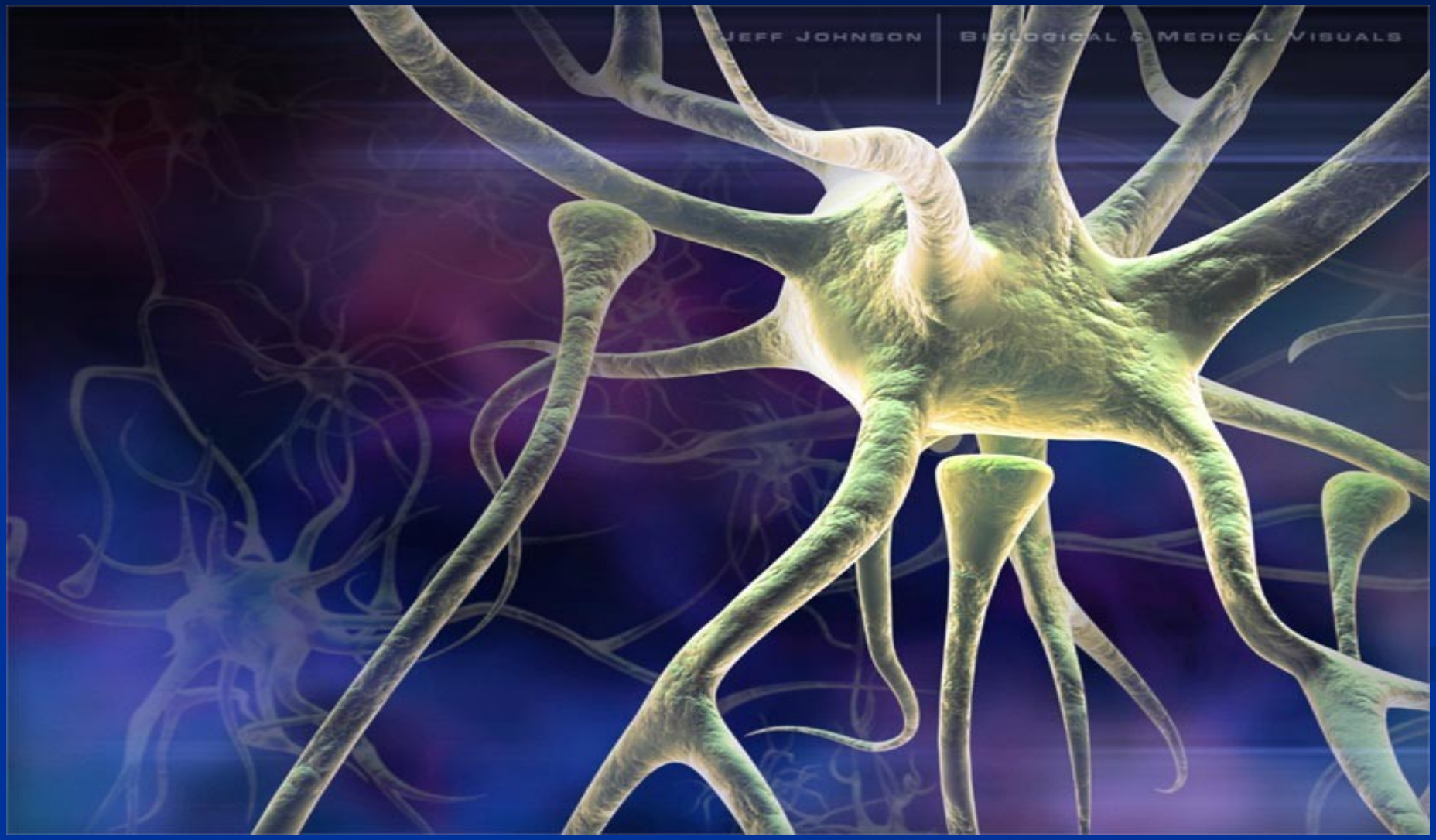
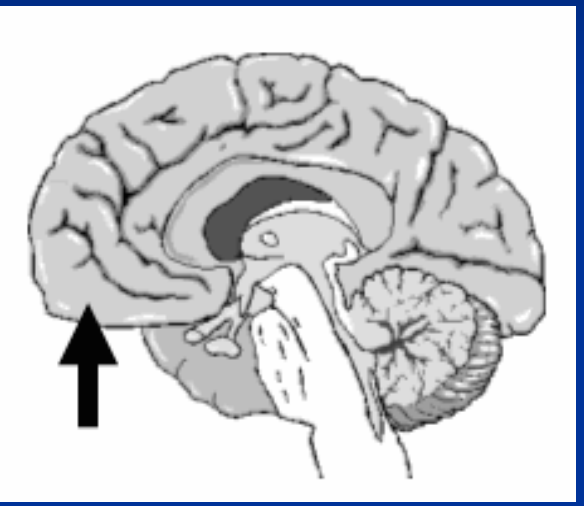
Neuroscience Theories

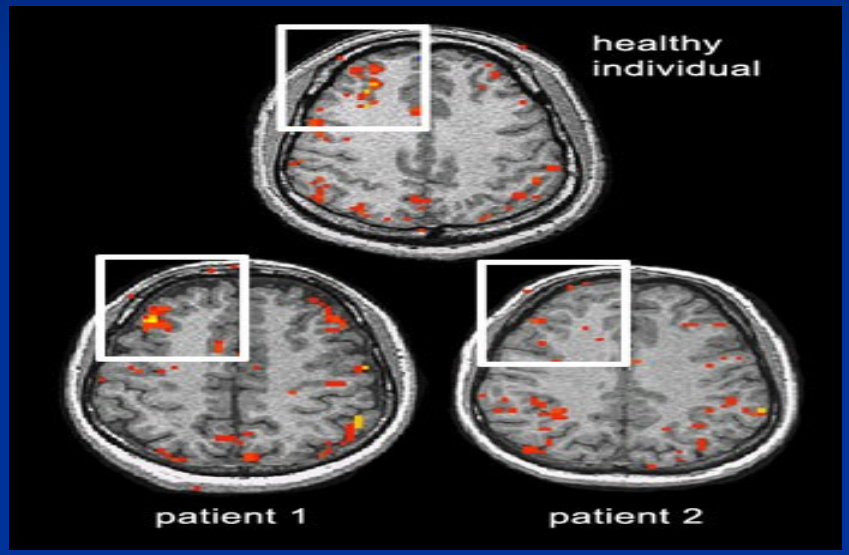


Serotonin Theory



- Many post-mortem studies have been done on the brains of suicide victims (e.g., Asberg, 1990).
- Measured: Post-synaptic serotonin 5-HT & metabolite 5-HIAA.
- Findings: Decreases in CSF serotonin is associated with suicide, homicide, and violent behavior.

The Importance of the Prefrontal Cortex



- Mann (1998) posits that ventral pre-frontal cortex is centrally implicated in suicidal behaviors.
- Mann has further proposed a stress-diathesis model for suicide.

Genetic Work

- Brent, Johnson, and Connolly's (1996) controlled family studies of adolescent suicide underscored possible role of family transmission.

- Joiner, Johnson, and Soderstrom (2002) examined the potential role of variations in the serotonin transporter gene in relation to suicidal behaviors.

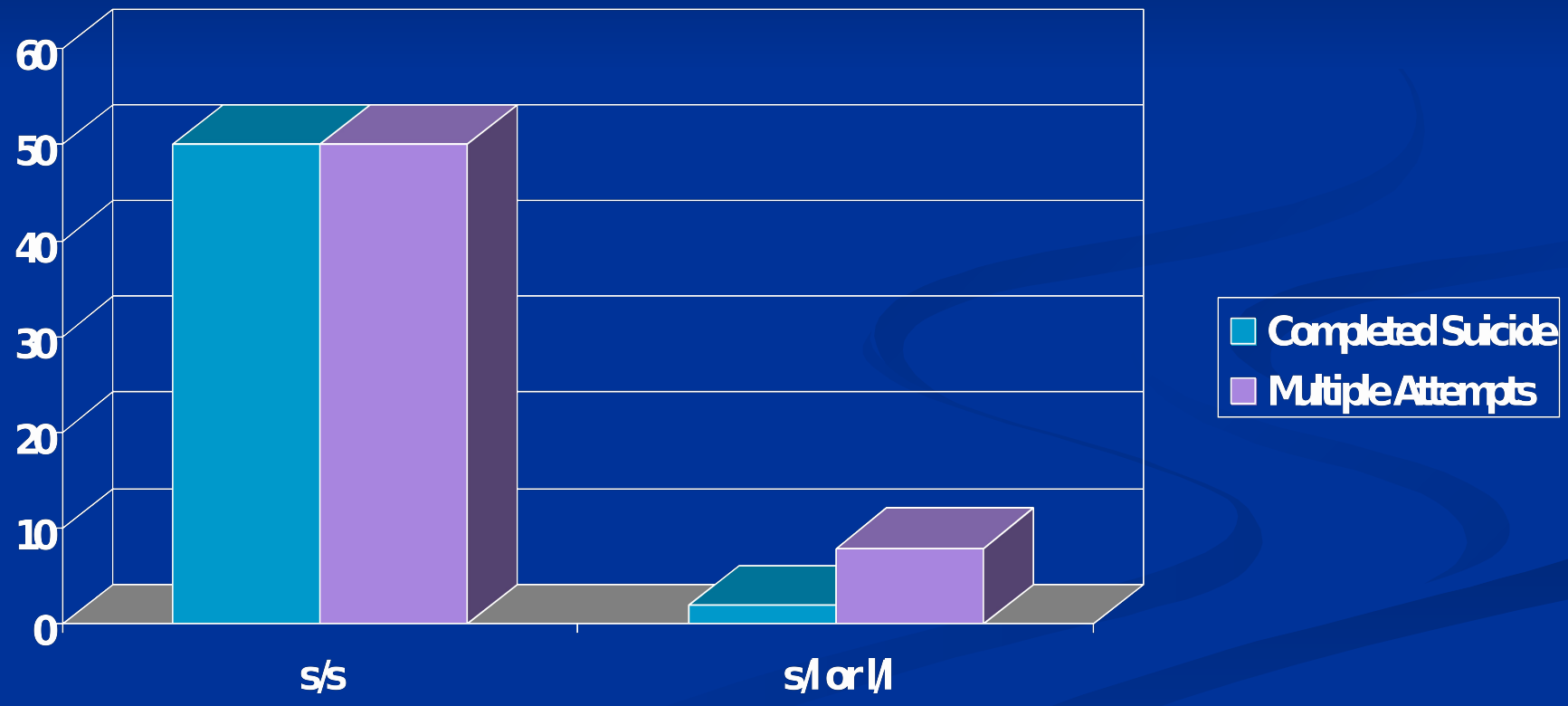
Allelic Variations on the Serotonin Transporter Gene

- The serotonin transporter, through reuptake of serotonin, plays a key role in regulating serotonin's neurotransmission, is the initial site of action of SR antidepressants, and may be important in the early development of emotion-related brain regions.
- The serotonin transporter is encoded by a single gene on chromosome 17q11.2, and has a polymorphism in its transcriptional control region (5-HTTLPR). A 44-base pair insertion or deletion constitute the long (l) and short (s) forms of the polymorphism, respectively.

Allelic Variations on the Serotonin Transporter Gene

- The s variant (especially s/s) has been associated with non-optimal serotonergic functioning and with negative emotionality, although this finding has not always replicated.
- Similarly, the s variant has shown relations to some forms of psychopathology, but not always. Mann et al. (2000) recently reported that the polymorphism was related to major depression but not to suicide (although suicide victims did tend to have more short alleles; but not significantly more).

Study on Polymorphism and Family History of Suicide—RESULTS



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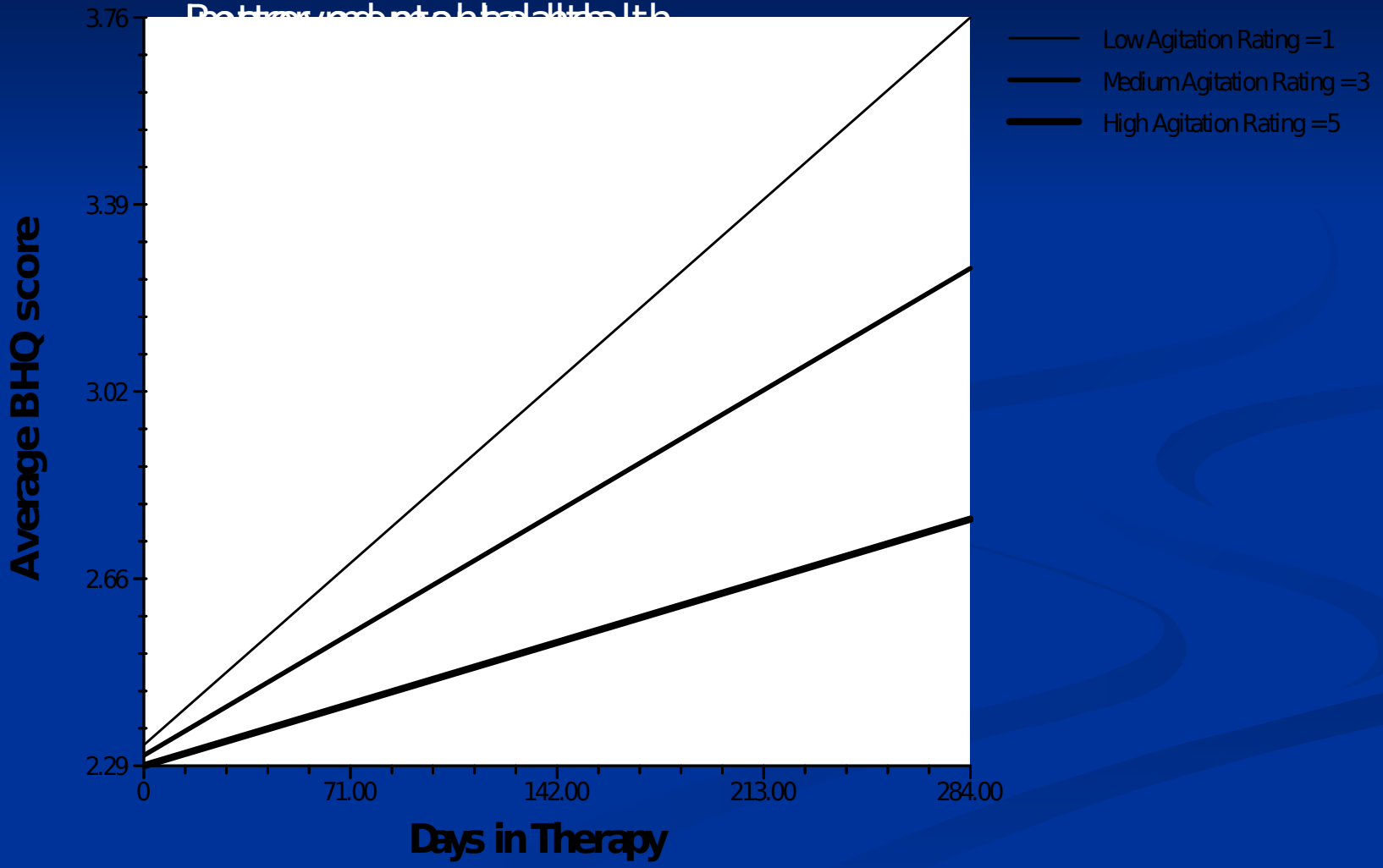
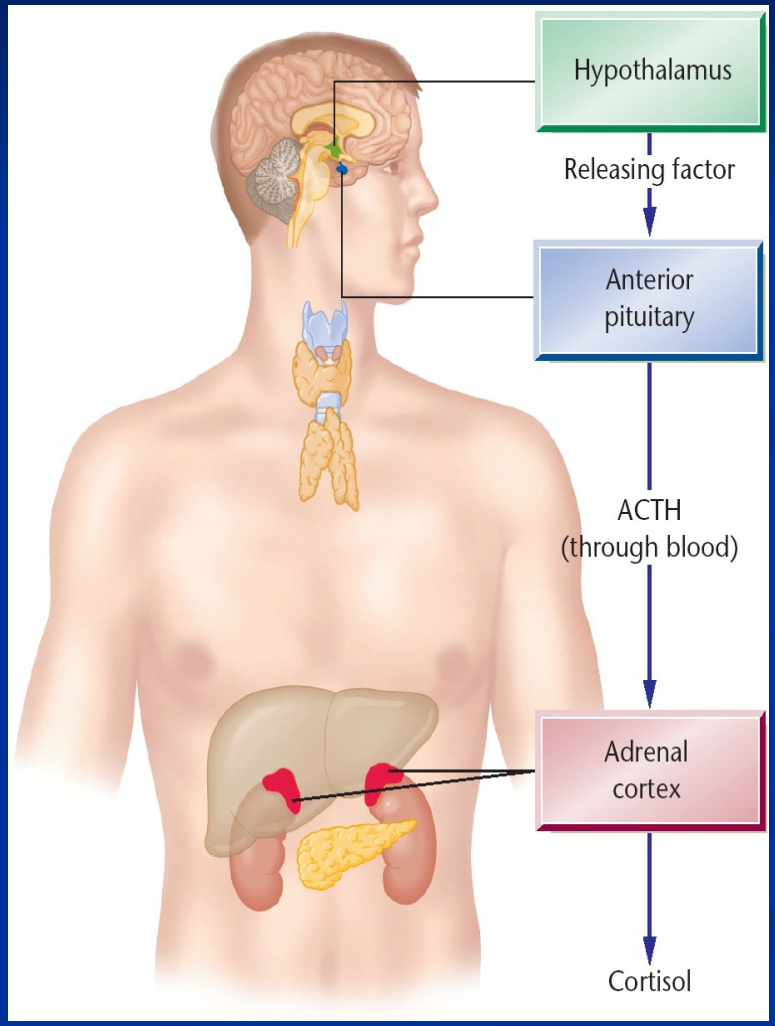
Suicidal College Student Treatment Outcomes (n= 92) Kahn-Greene, Jobes, & Goeky-Morey (2005)

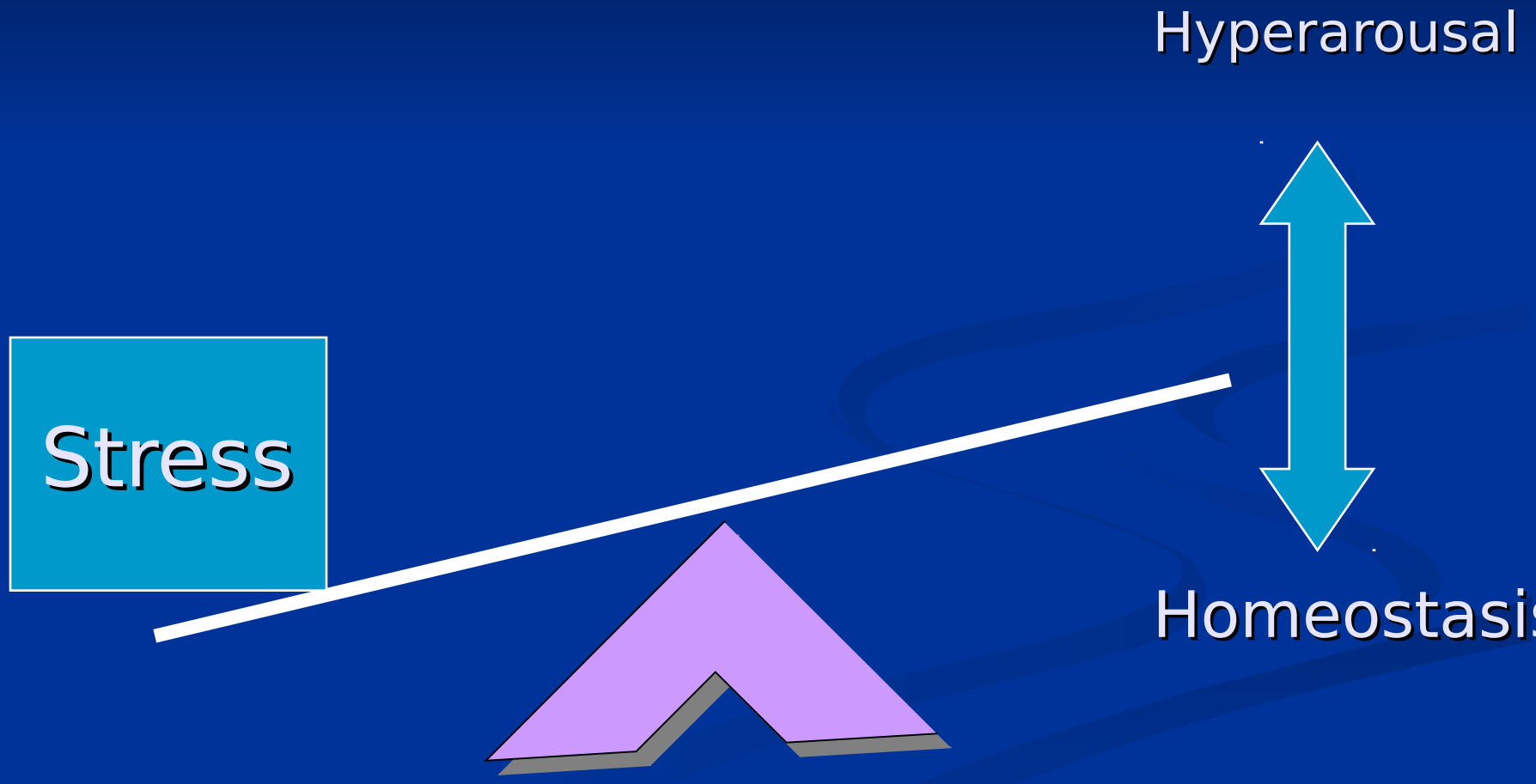
Better mental health

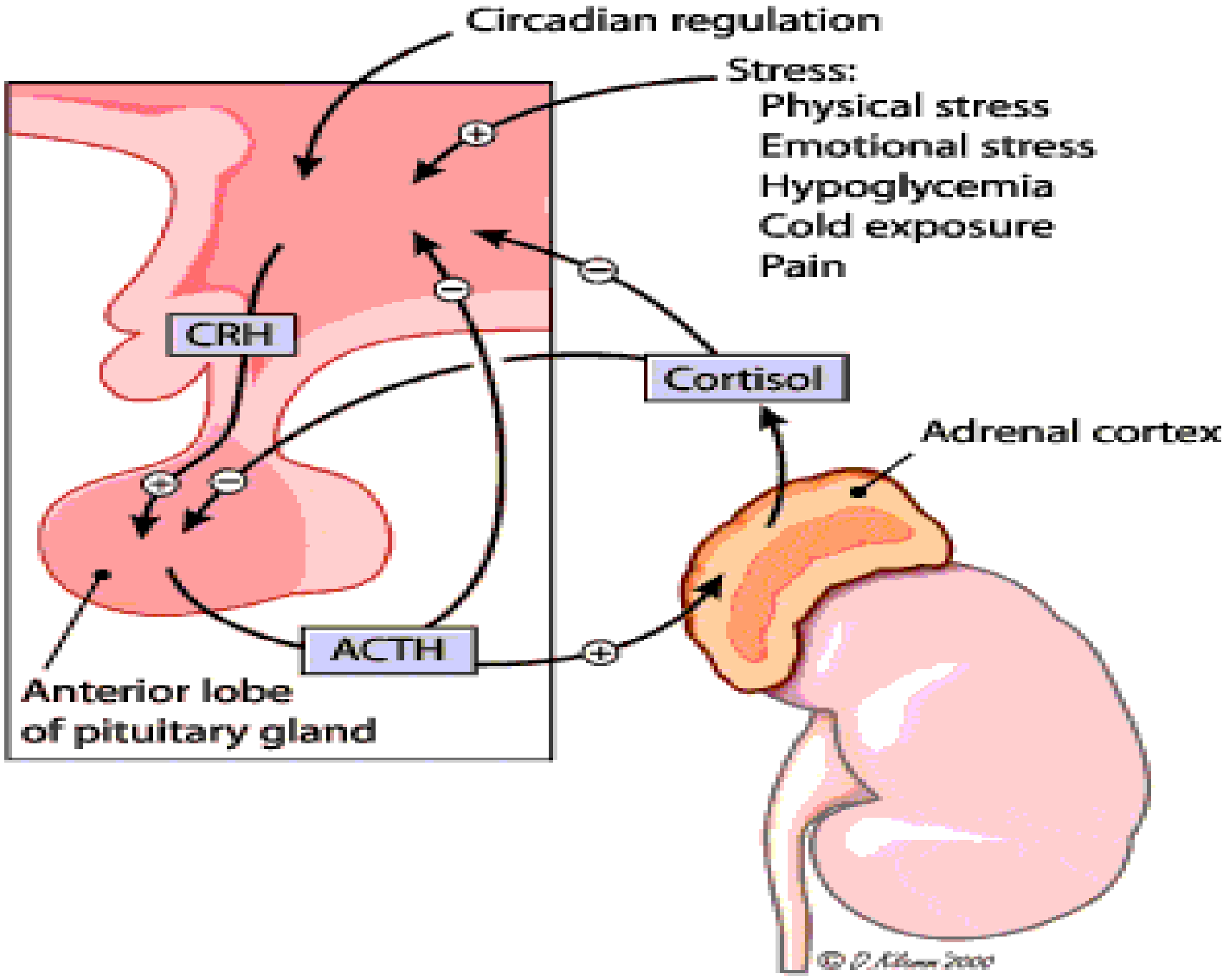


The HPA Axis


Hypothalamus
Releasing factor
Anterior pituitary
ACTH (through blood)
Adrenal cortex
Cortisol

I. The HPA Axis





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Summary of Suicide Neuroscience and Genetic Theories

- Diminished central serotonin metabolism is clearly associated with suicide (as seen by reduced levels of serotonin and 5-HIAA, and up-regulation of the postsynaptic-2 receptor).
- Post-mortem studies of suicide victim brain tissue have intensively examined serotonergic, noradrenergic, and dopaminergic neurotransmitter systems.
- There is increasing evidence of abnormalities in the ventral prefrontal cortex (e.g., decreases in presynaptic serotonin nerve terminal binding sites and increases in postsynaptic serotonin receptors in this region).
- The a great deal of interest in looking at genetic vulnerability
- There is a recent interest in looking at the role of the endocrine system and frontal lobe functioning as it may relate to suicide (Bostwick & Jobes, 2006).

Suicidal Theories: Conclusions?